

Civil Air Patrol

1986 Cessna 172P – N9702L

Avcon 180 HP Conversion
STC SA2800CE

Preflight Cabin

1. Pilot's Operating Handbook Available Set
2. Parking Brake.....Check
3. Hobbs & Tach.....Check
4. Fire ExtinguisherCharged
5. Squawk SheetCheck
6. DocumentsAROW in airplane
7. Control/Avionics Lock.....Remove
8. Ignition SwitchOff
9. Avionics Power Switch
10. Master Switch

Preflight Right Wing

1. Right FlapDisconnect
2. Right AileronCheck
3. Right Wingtip & LightCheck
4. Wing Tie DownCheck Clear
5. Right Fuel VentCheck
6. Right Main Wheel Tire & Brake.. Check Drain
7. Right Fuel SumpVisually Check
8. Right Fuel QuantitySecure, vent
9. Fuel Filler Capunobstructed.

Nose

1. Fuel Selector SumpDrain
2. Engine Oil Dipstick6-8 Quarts (8 for extended flights)
3. Engine Oil Filler Cap.....Check Secure
4. Fuel Strainer Drain Knob/Pullout to Drain
5. Prop & Spinner.....Check
6. Carburetor Air Filter.....Check
7. Nose Wheel, Strut & Tire.....Check
8. Nose Tie-DownDisconnect
9. Static SourceCheck (Left side
10. WindscreenCheck/Clean

Warning

When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

4. Control Surfaces.....Check

Preflight Right Wing trailing edge

1. Right FlapCheck
2. Right AileronCheck
3. Right Wingtip & LightCheck
4. Wing Tie DownCheck Clear
5. Right Fuel VentCheck
6. Right Main Wheel Tire & Brake.. Check Drain
7. Right Fuel SumpVisually Check
8. Right Fuel QuantitySecure, vent
9. Fuel Filler Capunobstructed.

Before Starting Engine

1. Preflight InspectionComplete
2. Passenger BriefComplete
3. Seats / Belts / Shoulder HarnessAdjust and Lock.
4. Brakes.....Test & Set
5. Avionics Power SwitchOff
6. Circuit Breakers
7. Electrical EquipmentOff
8. Fuel Selector Valve
9. Fuel Selector Valve
10. Elevator & Rudder Trim.....Set for Takeoff.
11. Throttle
12. Magnetos
13. Carb Heat
14. Suction Gauge
15. Engine Inst & Ammeter
16. ThrottleIdle Check, then 800 to 1000 RPM
17. Throttle Friction Lock
18. Strobe Lights/Pulse Lights
19. Radios & Avionics
20. Flaps set for Takeoff
21. Carb Heat
22. Takeoff Briefing
23. Doors & Windows
24. Lights
25. Transponder
26. Time
27. Parking Brake

Caution

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

Preflight Left Wing

1. Left Main Wheel Tire & Brake....Check
2. Left Fuel SumpDrain
3. Left Fuel QuantityVisually Check
4. Fuel Filler CapSecure
5. Pitot Tube Cover
6. Left Fuel Vent
7. Stall Warning.....Check
8. Wing Tie-Down
9. Landing Lights
10. Left Wingtip & Light
11. Avionics Power Switch
12. Flashing Beacon & Nav Lights ..On
13. Radios
14. Taxi Lights
15. Flaps.....Up
16. Transponder
17. ATIS / AWOS
18. Altimeter.. Set (Verify Within 75' of Field Elev.)
19. Clearance Delivery/Ground Control

Starting Engine

1. Carburetor Heat
2. Mixture
3. Propeller Area
4. Master Switch
5. Prime...As Required (2 to 6 strokes)
6. Throttle
7. Ignition Switch
8. Throttle
9. Oil Pressure
10. Starter
11. Avionics Power Switch
12. Flashing Beacon & Nav Lights ..On
13. Radios
14. Taxi Lights
15. Flaps.....Up
16. Transponder
17. ATIS / AWOS
18. Altimeter.. Set (Verify Within 75' of Field Elev.)
19. Clearance Delivery/Ground Control
20. Air Vents / Comfort
21. Fire Extinguisher Location / Operation
22. Emergency Procedures & Exits

Taxi

1. Heat / Vents / Defrost ..As Required
2. Brakes/Steering
3. Mixture
4. Attitude Indicator
5. Turn Coordinator
6. Operation.
7. H.I. & Compass
8. Seats, Seatbelts, Doors
9. Emergency Action & Equipment
10. Cockpit Layout
11. Intercom & Radio Usage
12. NOTAMS
13. Crew Coordination & CRM
14. Sterile Cockpit Procedures
15. Cabin Doors & Windows..Closed and Locked.
16. Flight Controls
17. Flight Instruments & H.I.Check & Set.
18. Fuel Quantity.....Check
19. Primer
20. In & Locked Rich Mixture
21. Fuel Selector Valve
22. Recheck Both
23. Elevator & Rudder Trim.....Set for Takeoff.
24. Throttle
25. RPM differential
26. Carb Heat
27. Check for RPM Drop
28. Suction Gauge
29. Engine Inst & Ammeter
30. Carb Heat
31. Check for RPM Drop
32. RPM - 50
33. Carb Heat
34. Check for RPM Drop
35. Suction Gauge
36. Engine Inst & Ammeter
37. Carb Heat
38. Check for RPM Drop
39. RPM - 50
40. Carb Heat
41. Check for RPM Drop
42. Suction Gauge
43. Engine Inst & Ammeter
44. Carb Heat
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491. Engine Inst & Ammeter
492. Carb Heat
493. Check for RPM Drop
494. RPM - 50
495. Carb Heat
496. Check for RPM Drop
497. Suction Gauge
498. Engine Inst & Ammeter
499. Carb Heat
500. Check for RPM Drop

Takeoff

- Flaps.....0°-10°
- Carb HeatCold
- ThrottleFull Open
- Mixture....Full Rich or Lean for Max RPM
- Engine Instruments
- Rotate.....55 KIAS
- Climb Speed.....70 to 80 KIAS
 - Short Field T.O.....10° Flaps / 57 KIAS Until Clear
 - Soft Field T.O..10° Flaps / Ground Effect ASAP
- Wing Flaps..Retract (above 70 KIAS)

Enroute Climb

- Airspeed75 - 85 KIAS Normal

Note

If a maximum performance climb is necessary, use speeds shown in the Rate Of Climb chart in POH Section 5.

- ThrottleFull Open
- Fuel Selector
- Mixture....Full Rich or Lean for Max RPM
- Engine Instruments
- Elevator & Rudder Trim.....Adjust
- Mixture.....Lean
- Engine Instruments / FuelCheck
- Heading Indicator (H.I.) To Compass
- Lights.....As Required
- Flight PlanActivate as Required

Cruise

- Power .2100-2700 RPM (no more than 75% is recommended)
- Altimeter
- Fuel Selector
- Lights.....As Required
- Engine Instruments
- Mixture.....Adjust for Smooth Operation (full rich for idle power)
- Carb Heat ... Full Heat as Required

Descent

- Heading Indicator
- To Compass
- Set
- Both
- Check
- Smooth
- As Required
- Up
- Cold
- As Required
- STBY & 1200
- Lean
- Off

Before Landing

- Seat, Seat Belts, Shoulder Harness Secure
- Fuel Selector Valve
- Both
- Mixture.....Rich
- Carb Heat.....On (Apply Full Heat Before Closing Throttle)

Normal Landing

- Airspeed ...65-75 KIAS (Flaps Up)
- Wing Flaps ..As Desired (Below 85 KIAS)(Maximum Flap Travel is 30°)
- Airspeed60-70 KIAS (Flaps Down)
- Trim
- Touchdown.....Main Wheel First
- Landing Roll ..Lower Nose Wheel Gently.
- Braking
- Minimum required

Short Field Landing

- Airspeed ...65-75 KIAS (Flaps Up)
- Wing Flaps ...30° (below 85 KIAS)
- Airspeed ...Maintain 62 KIAS (Until Flare)
- Trim
- Reduce to idle after clearing obstacle.
- Touchdown.....Main Wheels First
- Brakes
- Apply Heavily
- Retract

Balked Landing

- Throttle
- Full Open
- Carb Heat.....Cold
- Wing Flaps20° (Immediately)
- Climb Speed.....60 KIAS
- Wing Flaps...10° (Until Obstacles are Cleared)
- Wing Flaps....Retract (After reaching a safe altitude and 65 KIAS)

General...

- EMERGENCY
- Unicom.....122.70-122.80-122.95
- 123.00-123.05
- Multicom
- Flight Service122.20 (Most Common)
- 122.10-122.60-123.60
- Flight Watch.....122.00
- Air to Air122.75-122.85-123.45

Transponder Codes

- VFR
- 1200
- HIJACK
- 7500
- LOST COMMS
- 7600
- EMERGENCY
- 7700

Securing Aircraft

- Parking Brake
- Set
- Throttle
- Idle
- Avionics Power & Switches
- Off
- Magnetics
- Check for Ground Mixture
- Idle Cut Off
- Ignition & Master Switch
- Off
- Control/Avionics Lock
- Install
- Parking Brake
- Off
- Fuel Selector
- Left or Right Hobbs & Tach
- Record
- Aircraft.....Secured & Locked
- Flight Plan.....Closed
- Oil Type.....Exxon Elite 20W50
- Oil Capacity.....8 Qts (Minimum 6)
- Electrical
- 24 - 28 Volt / 60 Amp
- Tire Pressure
- Nose 40-45 PSI,
- Mains 35-40 PSI.

Speeds and Specs

- X-Wind (Max Demo'd)
- 15 Knots
- Vr Rotation Speed
- 55 KIAS
- Vx Best Angle Climb
- 62 KIAS
- Vy Best Rate Climb
- 73 KIAS
- Vso Stall w/ Flaps
- 40KIAS
- Vs1 Stall w/o Flaps
- 50KIAS
- Best Glide (2550 Lbs)
- 68 KIAS
- Va Max Abrupt Ctrl (2550 Lbs)
- 105 KIAS
- Va Max Abrupt Ctrl (2150 Lbs)
- 95 KIAS
- Va Max Abrupt Ctrl (1750 Lbs)
- 85 KIAS
- Vn Max Structural Cruise
- 127 KIAS
- Vn Max Exceed
- 158 KIAS
- Vfe 10°-Full Flaps
- 85 KIAS
- Max Window Open Speed
- 158 KIAS

V Speeds and Specs

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only. The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft. The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.

I certify this checklist has been reviewed for accuracy.

John A. Ziegler 12/20/05
Wing Director of Maintenance Date

N97802L 060109

V Speeds and Specs

Consult the Avcon Conversions, Inc. FAA Approved Airplane Flight Manual
Supplement for V speed and Specs for operations above sea level.

General...

- EMERGENCY
- Unicom.....122.70-122.80-122.95
- Multicom
- Flight Service122.20 (Most Common)
- 122.10-122.60-123.60
- Flight Watch.....122.00
- Air to Air122.75-122.85-123.45